

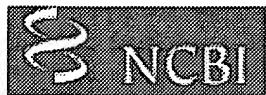
>gi|1943944|gb|U85780.1|SOU85780 Spinacia oleracea choline monooxygenase precursor
gene encoding chloroplast protein, complete cds
Length = 1622

Score = 71.9 bits (36), Expect = 2e-10
Identities = 63/72 (87%)
Strand = Plus / Plus

Query: 7 gcaagtgcacaacaatgttgcataccaaactgttatgtggtataccaaattca 66
|||||| ||||| ||||||| ||||||||| ||||||||| ||| ||| ||||||| ||||| |
Sbjct: 72 gcaagcgcaaccacaatgttgcataccaaactacagttgtggtattccaaatcct 131

Query: 67 tcataacaat 78
|||||||
Sbjct: 132 tcataacaat 143

SEQ ID NO: 16



The diagram shows a DNA sequence with a nucleotide highlighted at position 35. The sequence consists of two strands: the top strand is oriented downwards and the bottom strand is oriented upwards. The highlighted nucleotide is a guanine (G), which is part of a codon (GGT) that codes for the amino acid Valine (Val). The label "Nucleotide 35" is placed to the right of the highlighted G.

Nucleotide

16

PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books
Search <input type="text" value="Nucleotide"/> for <input type="text"/>						<input type="button" value="Go"/>	<input type="button" value="Clear"/>	
<input type="button" value="Limits"/>			<input type="button" value="Preview/Index"/>	<input type="button" value="History"/>	<input type="button" value="Clipboard"/>		<input type="button" value="Details"/>	
<input type="button" value="Display"/> <input type="button" value="default"/>		<input type="button" value="Save"/>	<input type="button" value="Text"/>	<input type="button" value="Add to Clipboard"/>				

□1: U85780. *Spinacia oleracea*...[gi:1943944]

Protein, PubMed, Taxonomy, LinkOut

LOCUS SOU85780 1622 bp mRNA linear PLN 11-JUN-2001
 DEFINITION Spinacia oleracea choline monooxygenase precursor mRNA, nuclear gene encoding chloroplast protein, complete cds.
 ACCESSION U85780
 VERSION U85780.1 GI:1943944
 KEYWORDS .
 SOURCE Spinacia oleracea.
 ORGANISM Spinacia oleracea
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicots; Caryophyllidae; Caryophyllales; Chenopodiaceae; Spinacia.
 REFERENCE 1 (bases 1 to 1622)
 AUTHORS Rathinasabapathi,B., Burnet,M., Russell,B.L., Gage,D.A., Liao,P.C., Nye,G.J., Scott,P., Golbeck,J.H. and Hanson,A.D.
 TITLE Choline monooxygenase, an unusual iron-sulfur enzyme catalyzing the first step of glycine betaine synthesis in plants: prosthetic group characterization and cDNA cloning
 JOURNAL Proc. Natl. Acad. Sci. U.S.A. 94 (7), 3454-3458 (1997)
 MEDLINE 97250559
 PUBMED 9096415
 REFERENCE 2 (bases 1 to 1622)
 AUTHORS Rathinasabapathi,B., Hanson,A.D. and Burnet,M.
 TITLE Direct Submission
 JOURNAL Submitted (17-JAN-1997) Horticultural Sciences Department, University of Florida, 1143 Fifield Hall, Gainesville, FL 32611-0690, USA
 FEATURES Location/Qualifiers
 source 1..1622
 /organism="Spinacia oleracea"
 /db_xref="taxon:3562"
 /clone="CM01117"
 CDS 57..1376
 /function="catalyzes the oxidation of choline to betaine aldehyde"
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 /codon_start=1
 /product="choline monooxygenase precursor"
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57..1373 /note="Region: Iron sulfur binding region"
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mat_peptide 237..1373 /product="choline monooxygenase"
misc_feature 540..608 /note="encodes Fe-S cluster binding site; two cys-his pairs spaced 16 residues apart; cys-his pairs act as ligands for the Fe-S binding cluster; characteristic of Rieske-type Fe-S proteins; unclassified site"
BASE COUNT 512 a 334 c 318 g 458 t
ORIGIN
1 tagtaagggt gtagctaatt agcaaaataa acaaaaagga agtgtttagt tggtaatga
61 tggcagcaag cgcaagcgca accacaatgt tgctaaaata cccactaca gtttgtgta
121 ttccaaatcc ttcatcaaac aataataatg atccttcaaa caatatagtt tctattccac
181 aaaatactac taatccaaca cttaagtccc gtacacctaa taaaatcacc accaacgccc
241 tcgcggcacc gtccttcct tcttaacca ccactacacc gtcgtccatc caatcacttg
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421 ttgcagggat cagcgatcaa ataaaagagc ctaaccaata tttcactggc agcttaggaa
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781 agtggcttgg tacttctgtt gaagatgtt aaggccatgc ttttgcattt tcacttcaat
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1561 atcaaatatca atatcaatat caatattacc agtaattttt aaaaaaaaaaaa aaaaaaaaaaaa
1621 aa

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Revised: July 5, 2002.

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Jul 31 2002 10:35:46